

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the application of)	
The Detroit Edison Company for)	Case No. U-16117
approval of depreciation accrual)	
<u>rates and other related practices.</u>)	

NOTICE OF PROPOSAL FOR DECISION

The attached Proposal for Decision is being issued and served on all parties of record in the above matter on March 24, 2011.

Exceptions, if any, must be filed with the Michigan Public Service Commission, P.O. Box 30221, 6545 Mercantile Way, Lansing, Michigan 48909, and served on all other parties of record on or before April 8, 2011, or within such further period as may be authorized for filing exceptions. If exceptions are filed, replies thereto may be filed on or before April 19, 2011. **The Commission has selected this case for participation in its Paperless Electronic Filings Program. No paper documents will be required to be filed in this case.**

At the expiration of the period for filing exceptions, an Order of the Commission will be issued in conformity with the attached Proposal for Decision and will become effective unless exceptions are filed seasonably or unless the Proposal for Decision is reviewed by action of the Commission. To be seasonably filed, exceptions must reach the Commission on or before the date they are due.

STATE OFFICE OF ADMINISTRATIVE
HEARINGS AND RULES
For the Michigan Public Service Commission

Mark D. Eyster
Administrative Law Judge

March 24, 2011
Lansing, Michigan
drr

STATE OF MICHIGAN
STATE OFFICE OF ADMINISTRATIVE HEARINGS AND RULES
FOR THE MICHIGAN PUBLIC SERVICE COMMISSION

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PROPOSAL FOR DECISION

PROCEDURAL HISTORY

On November 2, 2009, in response to the Michigan Public Service Commission's (Commission) June 26, 2007, Opinion and Order in Case No. U-14292, The Detroit Edison Company (Edison) filed this application for approval of its proposed depreciation accrual rates and related practices. As part of the June 26, 2007, Opinion and Order, Edison was directed to include cost of removal estimates using the, then, current or "traditional" method, an inflation adjusted method, and the SFAS depreciation method.

On January 12, 2010, a pre-hearing conference was held before Administrative Law Judge, Mark D. Eyster. Counsel appeared on behalf of Edison, the Michigan Public Service Commission staff (Staff), and the Association of Businesses Advocating Tariff Equity (ABATE). At the pre-hearing, intervenor status was granted to ABATE and a schedule was adopted. A rescheduled evidentiary hearing was conducted on November 18, 2010. Briefs were filed on January 14, 2011, and reply briefs were filed on February 3, 2011.

The record in this matter consists of a transcript, 259 pages in length, and 57 exhibits.

POSITIONS OF THE PARTIES

Edison

Edison proposes that the Commission approve continued use of the “traditional” method of recovering removal costs, rather than adopting inflation adjusted or SFAS approaches¹, and that it approve the depreciation/amortization rates shown in Exhibit A-11. Edison states that “Commission approval of the

¹At Edison Init Br, p 7, fn 9, Edison states,

Dr. White described the three methods of analysis: First, a traditional, historical analysis using a five-year moving average of the ratio of realized salvage and removal expense to the associated retirements was used to a) estimate a realized net salvage rate; b) detect the emergence of historical trends; and c) establish a basis for estimating a future net salvage rate. Cost of removal and salvage opinions obtained from Edison operations and plant accounting personnel were blended with judgment and historical net salvage indications in developing estimates of the future. The resulting future net salvage ratios were used in the conventional formulation of a remaining-life accrual rate. Average net salvage rates were estimated using direct dollar weighting of historical retirements with historical net salvage rates, and future retirements (*i.e.*, surviving plant) with estimated future net salvage rates (2 T 121).

Second, an inflation-adjusted method of accruing for net salvage using a set of Consumer Price Indexes (CPI) and Producer Price Indexes (PPI) combined with a composite index generated from a geometric series reflecting both historical and future inflation rates. The trended series of retirements was then substituted for recorded retirements in the traditional net salvage analysis (2 T 121).

Finally, a SFAS 143 method of accruing for net salvage was modeled by first estimating the present value of non-legal asset retirement obligations (“AROs”). Present values were derived by discounting the product of future retirements and future net salvage rates estimated in the traditional net salvage analysis adjusted to fair value. Future retirements for each vintage were derived from an application of survivor ratios to the age distributions of surviving plant at December 31, 2008. Survivor ratios were derived from the projection lives and curves estimated in the statistical life analysis. The present value of the non-legal AROs was accreted and added to straight-line, whole-life accruals of estimated asset retirement costs (“ARCs”) to obtain a total accrual for net salvage (2 T 121-22; Exhibit A-12).

traditional depreciation methodology and Edison's proposed 3.33% composite depreciation rate (3.4% with Ludington) will provide Edison with the necessary and appropriate cash flow to operate and maintain its business, and will not significantly change Edison's total depreciation expense."

Edison Init Br, p 16-17. As additional support for its position to continue use of the traditional method, Edison cites the Commission's March 18, 2010, Opinion and Order in Case No. U-15699 and its September 29, 2009, Opinion and Order in Case No. U-15629.

Edison argues that changing to either an inflation adjusted or SFAS method "would reduce Edison's internal cash generation, which would have to be offset by additional external financing . . . and could expose Edison's current customers to potentially higher marginal costs of that external financing". Edison Init Br, p 12. To support this particular argument, Edison cites the Commission's September 29, 2009, Opinion and Order and its February 8, 2010, Order in Case No. U-15629.

Further, Edison notes that its current "depreciation system is composed of the straight-line method, broad group procedure, and remaining-life technique. Edison proposes to change from a broad group procedure, in which each vintage is estimated to have the same average service life, to a vintage group procedure, where consideration is given to the realized life of each vintage when average service lives and remaining lives are derived using the vintage group procedure." Edison Init Br, p 17-18.

Edison, also, recommends establishment of a new depreciable account for Advanced Metering Infrastructure (AMI) meters, the rebalancing of Edison's accumulated depreciation reserve, and a change to amortization for certain general plant accounts and for Edison's current conventional meter account. Edison Init Br, p 21. Edison argues that a change to amortization accounting will simplify accounting and record keeping and increase accuracy of plant reports. Edison maintains that amortization accounting for current conventional meters will relieve it from the "burden of tracking and recording retirements of more than 2.5 million meters over the period 2010 – 2015 [and] establish a depreciation reserve consistent with the committed schedule of replacing electromechanical meters with AMI meters". Edison Init Br, p 21-22.

Edison states that its Demolition Study "reports a total removal cost of \$319 million, . . . which fairly represents in aggregate the cost of demolishing each of Edison's power plants, in 2008 dollars, including the cost of removing the plant material from each site and restoring the site". Edison Init Br, p 23. Edison argues for the inclusion of \$15,680,270 in demolition costs for asbestos abatement. Edison Init Br, p 24-26 Edison, also, argues for inclusion of \$10 million in closure costs for the Monroe Ash Pond, based on a forecasted "25% probability that future regulations would require the Company to expend \$41.8 million". Edison Init Br, p 26-27. In the alternative, Edison argues that, if the Monroe Ash Pond were closed today, it would require expenditures that exceed the \$10 million estimate. Edison Reply Br, p 24.

Edison argues that, “based on . . . professional judgment and the type of projects involved” and “[i]n accordance with the industry standard, Edison’s demolition costs include a contingency factor for unforeseeable elements that may occur during the actual execution of a project [of] 20%.” Edison Init Br, p 28.

Edison notes that the demolition study included decommissioning costs of \$2.6 million for its Range Road ash field and Sibley Quarry and argues for their inclusion as part of this depreciation filing. Edison Init Br, p 30.

Edison concedes that “Staff correctly noted that Edison only owns 81.39% of the Belle River Power Plant. Therefore the . . . inclusion of 100% of the [Belle River Power Plant] demolition costs . . . is in error and the Commission should only include 81.39% of the final level of net salvage determined for this plant in the depreciation study.” Edison Init Br, p 31.

In its demolition study, Edison does not include the value of scrap materials and Edison strongly disputes the scrap value proposed by Staff.² Edison argues that, by using information relevant to nuclear power plants, Staff presents a “greatly inflated calculation of Edison’s scrap volumes.” Edison Reply Br, p 18. Furthermore, Edison argues that Staff improperly scaled the nuclear plant data to fossil power plants and failed to consider the cost of labor required to prepare the materials for recycling. Edison Reply Br, p 19. At Edison Reply Br, p 20 (citations omitted):

Edison maintains that it is appropriate to not include any value for scrap material because it is speculative to predict a future value, if any, for that material.

² As explained, below, Staff estimates the scrap value of Edison’s fossil power plants to be \$117,594,962.

If, however, the Commission does decide to assign some value to scrap material, then the Commission should still reject Staff's miscalculated and unreasonable \$531 million estimate and instead use Edison's rebuttal salvage value estimate of \$71 million. Mr. Crean in his rebuttal Exhibit A-22 independently calculates this **\$71 million** of scrap value (21% of the \$319 million dismantling costs) using the same general method that Staff used, but properly calculating the volume of scrap material based on a fossil plant (rather than a nuclear plant), and using Global Scrap's **2008 prices for scrap**. Edison's estimate is at the high end of the 14-21% reasonable range of salvage value to dismantling costs, which is supported by the Florida and Colorado studies.

Staff

Staff states that Edison has "substantially complied" with the June 26, 2007 Order in Case No. U-14292. However, Staff does not support Edison's proposed depreciation rates or annual depreciation expense. Instead, Staff proposes that the Commission reduce Edison's annual depreciation expense by \$44.4 million to a \$363,400,000 annual depreciation expense using a composite depreciation rate of 2.98%. Staff Reply Br, p 21.

At Staff Init Br, p 4 (citations omitted), Staff states:

Staff's composite depreciation rate was calculated . . . [using] the same method as the Company. Due to Staff's proposed adjustment, there were two inputs that differ from the Company's depreciation study inputs. The first and largest was the different demolition amount net of salvage for the steam generation plants The second involves the rebalancing of the depreciation reserves using a depreciation rate for the non-AMI meters, rather than the amortization rate proposed by the Company

Staff's argues for adoption of its estimated demolition costs of \$222,146,341, adjusted by salvage value of \$177,594,962, for a cost of removal net of salvage of positive \$44,551,379. Staff Reply Br, p 6.

Staff recommends eight adjustments in the following areas of the Company's demolition study: 1) asbestos volume remaining in each plant, 2) estimated scrap value, 3) landfill volume estimates, 4) calculation of labor rates, 5) required man-hours, 6) contingency factor and profit, 7) Monroe ash pond, and 8) The Belle River Power Plant ownership interest. Staff Init Br, p 5-6.

Based on Staff's "understanding of workplace safety requirements and information in the asbestos surveys", Staff made downward adjustments to Edison's estimated volumes of asbestos to be removed. Staff Init Br, p 6. First, Staff discounted asbestos surveys that were not conducted by State of Michigan licensed inspectors. Additionally, Staff did not count any asbestos containing materials "that were assigned a hazard rank minimum of '4', on a scale of 1 through 7", under the assumption that this material will be immediately removed. Staff Init Br, p 6-7. Staff also discounted any asbestos that was not assigned a hazard rating. Staff Init Br, p 7. Staff further discounted for material that was identified as damaged, under the belief that all such material "would have" been removed per Occupational Safety and Health Administration guidelines. Staff Init Br, p 7. "Based upon the foregoing, Staff recommends that the Commission reduce the estimates in the Company's Asbestos Survey by a total of 227,831 Square Feet (SF), 215,676 Linear Feet (LF), approximately 11,088 cubic yards." Staff Init Br, p 8. "Based upon Staff's estimated remaining volumes of asbestos to be abated, Staff recommends that the Commission reduce asbestos removal expense by \$6,816,730. Staff further recommends an adjustment of \$2,546,903 related to the area preparation, labor, equipment, and

disposal costs associated with . . . the estimated volumes of remaining asbestos to be removed” Staff Init Br, p 8-9.

Staff objects to Edison’s failure to assign a value to salvageable scrap material. To determine the likely value of scrap metal from Edison’s plants, Staff “applied ‘the most reasonable assumptions possible’ based upon information . . . available from the U.S. Environmental Protection Agency regarding the ‘average of scrap metal from the demolition of a nuclear power plant.’” Staff Init Br, p 10. Applying current scrap metal prices to the USEPA data, Staff initially recommended adoption of a salvage value of \$531,316,800. Staff Init Br, p 10-11. However, in its reply brief, Staff adjusted its estimated scrap value, downward, to \$177,594,962. Staff Reply Br, p 14-16.

Additionally, “Staff recommends that the Commission adopt an average rate . . . of \$48.78 for calculating the ‘dismantling removal labor’ on line item three of Exhibit A-13, Table 3.” Staff Init Br, p 13. This results in a downward adjustment of the dismantling cost in the amount of \$17,559,000. Staff Init Br, p 13.

Staff opposes Edison’s inclusion of a 20% contingency factor, as part of the estimated demolition costs. At Staff Init Br, p 15 (citations omitted), Staff argues:

[T]he industry has been performing these demolitions for many years and has obtained a level of understanding of this practice that doesn’t warrant the use of the industry standard 20% contingency. In addition, these demolition cost estimates also include a 10% profit markup meant to compensate the professional experience realized by the consultants hired for each project. Mr. Crean testifies that he expects the consultants performing the demolition projects to be knowledgeable, equipped, and

experienced professionals, therefore, justifying the 10% overhead and profit markup. . . . As the level of experience and expertise of a consulting firm increase, so do the value and/or cost of their service, therefore, if the industry standard is to include a 20% contingency, and yet Mr. Crean has included an overhead profit premium of 10%, then the contingency should be reduced by the amount of the overhead profit premium. The contingency factor should reflect the consultant's level of experience, their professional expertise, and their access to, and knowledge of the material and technology required to successfully complete the project on time and under budget.

Staff opposes inclusion of \$10,000,000 for closure of the Monroe Ash pond. Staff Init Br, p 16. Staff cites inconsistent testimony by Edison for its reasoning and finds it's calculation of a 25% chance that the DEQ will require a flexible membrane system, unpersuasive. Staff Init Br, p 16.

Staff argues that Edison's liability for the Belle River Power Plant be reduced from 100% to 81.39% to reflect Edison's actual ownership interest in the plant. As a result, Staff recommends a \$5,717,934 reduction in the related demolition costs. Staff Init Br, p 17.

"Staff supports the traditional method for calculating of net salvage value in the demolition of steam generation plant. For steam generation plant, this means applying an annual escalation rate to the demolition study amount, net of salvage, escalated to the end of the steam plants' individual lives. Staff accepted the Company's proposed rate of 2.84% as reasonable." Staff Init Br, p 17 (citation omitted).

Staff supports Edison's proposed switch from the broad group procedure to the vintage group procedure for depreciation purposes. However, Staff states, at Staff Init Br, p 18:

Staff recommends that the Company provide sufficient activity year data in its next rate case so that Staff can verify that the results are not biased with too short of an observation band. The 13 activity years provided by the Company is insufficient for the use of the Vintage Year procedure for the large, long lived accounts, such as Transmission, Distribution and General Structures & Improvements, Distribution Underground Conduit, Underground Conductors and Devices, Line Transformers, Overhead services and Meters. For these accounts, Staff recommends that the Commission order Detroit Edison to provide 40 years of activity data for the use of the Vintage Group procedure.

Because of its concern with Edison's net salvage calculations for steam production plant and data for activity years, Staff recommends that Edison be ordered to file its next depreciation case two years from the date of the final Commission order in this case. Staff Init Br, p 19.

Staff disagrees with Edison's determination that the Fermi 2 plant's expected life is 40 years. Staff Reply Br, p 3-5. Rather, Staff supports ABATE's position that the Commission treat Fermi 2 as having an expected 60-year life and decrease Edison's annual depreciation expense accrual by \$10 million.

Staff supports Edison's proposal for amortization for certain general plant accounts, but not its proposal for amortization of non-AMI meters. "Staff recommends that the new AMI meter account be accepted, but that amortization of non-AMI meters be delayed until the Commission approved full deployment of Detroit Edison's AMI program". Staff Init Br, p 19.

In conclusion, at Staff Init Br, p 20-21:

- Staff recommends that the Commission . . . :
1. Approve Detroit Edison's proposed depreciation and net salvage methodologies;
 2. Approve the Traditional Method for net salvage;

3. Approve Detroit Edison's estimate of remaining lives on the condition that the Company provide at least 40 vintage years of data in the next case for certain non Steam and Nuclear production plant, or revert to the Broad Group method;
4. Approve Detroit Edison's proposal for a new AMI meter account;
5. Deny Detroit Edison's proposal that the existing meter account to be amortized until AMI is approved by the Commission for full implementation, and that the Company's historic rate be continued at this time;
6. Approve Detroit Edison's proposal for amortization accounting for general plant accounts;
7. Approve Detroit Edison's proposed rebalancing of the depreciation reserve;
8. Adopt Staff's proposed adjustments to the demolition study;

* * *

10. Deny Detroit Edison's proposed depreciation rate of 3.3%;
11. Adopt Staff's recommended composite depreciation rate of 2.69%;
12. Deny Detroit Edison's proposed \$406,390,877 annual depreciation expense;
13. Adopt Staff's recommended \$329,489,267 annual depreciation expense; and
14. Order Detroit Edison to file a new depreciation rate case two years from the date of the Commission's final order in this case.

ABATE

In its Initial Brief, ABATE addresses: Edison's projected 40-year life for Fermi 2; Edison's undervaluation of reclaimed generation sites and scrap salvage from plant demolition; Edison's inclusion of a 20% contingency factor in demolition costs; Edison's escalation rate; ABATE's preference for the SFAS 143 Method, rather than the traditional method employed by Edison and Staff; Edison's failure to sufficiently account for economic conditions in Michigan, and; ABATE's contention that a 30-year life should be used to calculate the depreciation rate for Account 370.02 Meters—AMI. ABATE Init Br, p 1-2.

ABATE argues that the depreciation rate for Fermi 2 be based on a 60-year service life. ABATE Init Br, p 3. To support this position, ABATE notes that the Commission's 21st Century Electric Energy Plan used a 60-year life for nuclear units; that Staff used a 60-year life span for all Michigan nuclear units in its report, Michigan Capacity Need Form: Staff Report to the Michigan Public Service Commission; that, to date, 98 of 104 owners of nuclear units have pursued license renewals; that, since March 2002, the Nuclear Regulatory Commission has approved license renewals for 59 reactors and has never denied a renewal request, that jurisdictions, including Louisiana, Georgia and Missouri, have assumed 60-year lives for depreciation purposes; that, by extending Fermi 2's service life, annual depreciation expense will be reduced from \$18.0 million to \$8.2 million; that failure to extend its service life, will provide Edison an accelerated write-off of its investment in Fermi 2, thus, unfairly burdening current ratepayers, and; that Edison has publicly announced its intention to seek a license extension for Fermi 2³. ABATE Init Br, p 4-5. ABATE finds it extremely likely that the Fermi 2 operating license will be extended by 20 years and urges the Commission to consider the State's current economic

³ ABATE cites to the testimony of Edison witness, Don M. Stanczac, in Case No. U-16472. The relevant portion of that testimony reads as follows:

Q. What is Edison's proposal with respect to nuclear decommissioning surcharge?

A. As discussed in the testimony of Witness Colonnello, Detroit Edison is supporting a \$19.5 million annual reduction in the portion of the Fermi 2 decommissioning surcharge related to Fermi 2 end-of-life decommissioning. Detroit Edison has intentions to pursue an operating license extension for the Fermi 2 nuclear asset. The license extension would allow Fermi 2 to operate an additional 20 years beyond its current operating license which expires in 2025, thus providing for a longer period of time to accumulate funding needed for Fermi 2 end-of-life decommissioning. *Application of Detroit Edison Co*, U-16472, Document No 1, p 40-41.

conditions in deciding to establish depreciation rates based on a 60 year life for Fermi 2. ABATE Init Br, p 5-6.

ABATE continues by arguing that Edison has failed to “give enough recognition to the value of the production sites and any scrap salvage.” ABATE Init Br, p 6. ABATE notes that an existing plant site is “valuable because it has access to electric transmission lines, water supplies, and transportation networks, and already has environmental permits. The value of an already-improved site is considerably higher than typical raw land.” ABATE Init Br, p 6-7. ABATE argues that “current depreciation rates should be reduced to reflect the value of the sites that will be available to future ratepayers.” ABATE Init Br, p 7.

ABATE opposes inclusion of a 20% contingency factor in the estimated demolition costs. ABATE states, at ABATE Init Br, p 10-11:

The final net salvage cost estimates used by Edison to develop the net salvage ratios to calculate the depreciation rates contain a 20% contingency factor. The 20% contingency factor does not represent a true cost and, therefore, should be removed from the terminal net salvage cost estimates. This factor unnecessarily increases the final net salvage estimates.

The contingency factor unnecessarily increases the estimated cost to decommission the Production plants. The contingency factor does not reflect a real cost but provides a safeguard at the expense of current ratepayers in the event that the cost estimates are low.

* * *

By applying the contingency factor, [Edison] has increased or inflated the final retirement cost by approximately \$135 million. . . . This does not represent a real cost and is based solely on a judgmental guess. This Commission should not require rate payers to fund a hypothetical cost.

ABATE argues that the 2.8% annual escalation rate that Edison applied to decommissioning costs should be lowered to 2.2%. At ABATE Init Br, p 11, ABATE states:

[ABATE] recommends that this escalation rate be reduced to 2.2% because this was the figure supported by Edison Witness Czech. Mr. Czech developed the escalation rate of 2.2% by taking a composite of the Consumer Price Index ("CPI") and the Producer Price Index ("PPI"). The escalation rate utilized in the decommissioning cost study was derived from the Employment Cost Index ("ECI") because of the significant labor costs associated with dismantling the production plant. However, . . . worksheets related to decommissioning cost studies performed by Mr. Crean, [show] that only 50% of the costs are labor-related. Therefore, it is appropriate that the removal cost escalation rate of 2.2% derived by Edison Witness Mr. Czech should be utilized to escalate the dismantling cost to the final date of retirement.

ABATE, next, argues against Edison's proposed continued use of the traditional method of recovering removal costs through depreciation rates. ABATE argues that there "is a major problem in the method utilized by Edison dealing with the fact that it requires ratepayers to pay net salvage costs that include inflation. Under this method, customers in 2011 and 2030 will pay the same dollar amount. This method makes absolutely no adjustment for the purchasing power of the dollar or the time value of money." ABATE Init Br, p 12.

ABATE continues, at ABATE Init Br, p 12:

Under Edison's methodology, the historic net salvage cost is expressed in current dollars, while the original cost of the asset is stated in dollars for the year the asset was originally placed in service. Edison's plant accounts have an average service life of over 40 years, so there is a significant time difference between the time the asset is placed in service and when the net salvage cost is incurred (assuming that it ever will be). As a result, the net salvage ratios that Edison used to develop its proposed depreciation rates have significant amounts of inflation included in those rates.

Including estimates of future inflation in the net salvage component of the depreciation rates produces inter-generational inequities.

ABATE recommends that “the SFAS 143 approach . . . be employed on a pilot basis for the transmission and distribution asset class, while the Traditional method . . . be utilized for the much larger class of Production plant. This will allow the Commission to evaluate both of these methods in light of actual experience during the next depreciation rate case.” ABATE Init Br, p 14.

FINDINGS OF FACT

Introduction

Edison presented the testimony of five witnesses: Philip A. Czech, Principal Financial Analyst, Regulatory Affairs for Edison; Dr. Ronald E. White, Chairman of the Board and Senior Consultant for Foster Associates, Inc.; Franklin D. Warren, Director and Chief Engineer of Detroit Edison Fossil Generation; Darrell P. Grassmyer, Supervisor for Environmental Management, Detroit Edison, and; William R. Crean, Principal Engineer for Black and Veatch.

Philip A. Czech presented direct testimony and exhibits to address the following: an overview of the Commission’s ordered alternative removal cost methods; a summary of the removal cost inflation adjustment method presented in MPSC Case No. U-14292 and support for the forecasted escalation rate; the SFAS No. 143 removal cost method and the discount rate and market-risk premium; the timing of Steam Production Plant decommissioning expenditures; the use of the Employment Cost Index to escalate current-year decommissioning costs; the forecasted, Fermi 2 annual, interim, removal expenditures; a history of

Edison's composite depreciation rate and comparison with the composite depreciation rates of other Michigan electric utilities; and Edison's recommended depreciation rates. In addition, Mr. Czech provided supplemental direct testimony to address Fermi decommissioning costs, proposed Ludington depreciation rates, and Consumers Energy depreciation rates. He also provided rebuttal testimony addressing the testimony of ABATE's witness, James T. Selecky.

Dr. White provided direct testimony addressing and to sponsor the 2009 Depreciation Rate Study that his company prepared. In addition, he provided rebuttal testimony addressing the direct testimony of Staff witness, Daniel M. Birkam, and ABATE witness, James T. Selecky.

Mr. Grassmyer provided rebuttal testimony addressing the testimony of Staff witness, James E. LaPan.

Mr. Warren provided direct testimony to describe the process used to develop estimates of plant depreciation lives for Edison's steam generation stations

Staff presented the testimony of four witnesses: James E. LaPan, Public Utility Engineer, Michigan Public Service Commission; Daniel M. Birkam, Auditor, Michigan Public Service Commission; Kevin S. Krause, Auditor, Michigan Public Service Commission; Ronald A. Radke, Economic Analyst, Michigan Public Service Commission.

Mr. LaPan presented Staff's recommended adjustments to Edison's Demolition Study. Mr. Radke presented the results of Staff's depreciation study

and its recommended depreciation rates. Mr. Krause presented Staff's recommendation for the depreciation and life of Edison's Fermi 2 plant. Mr. Birkam addressed Staff's positions on depreciation rates for Edison's Electric Utility Plant, its position regarding the issues raised by the Commission in Case No. U-14292, and Staff's recommendation for depreciation policy.

ABATE presented the testimony of James T. Selecky, a public utility regulation consultant and managing principal of Brubaker & Associates, Inc. Mr. Selecky presented testimony addressing depreciation rates for Edison's gas, oil, and coal fired generation plants, its Fermi 2 nuclear plant, and transmission and distribution plant.

In this Proposal for Decision (PFD), I will not review all aspects of the Application. Rather, the uncontested portions of the evidentiary record are accepted and the PFD will focus only on the points in dispute.

Demolition Study

Introduction

Mr. Crean provided testimony to address the 311 page Demolition Study that he sponsored as Exhibit A-13. In 2009, he performed the Demolition Study, for Edison, to evaluate the cost of demolition for Edison's nine coal, oil, and gas fired power plants.

In the Demolition Study, pricing was based on a number of assumptions, including: cost measures for December 2008, steel and concrete being recycled to minimize landfill costs, union labor wage rates, estimated man-hours based

upon material being removed as scrap, and a contingency allowance.
Exh A-13, p 10.

The Study does not include an estimate for the value of the demolition salvage material. This is, according to the Demolition Study, because “[t]he uncertainty of the future value of scrap material introduces an element that will not trend upwards similar to the actual cost of demolition.” Exh A-13, p 7.

Pursuant to the Demolition Study, at Exh A-13. p 6:

Since asbestos abatement is a major consideration in the demolition of any fossil power plant built prior to the 1970s, the determination of the amount of asbestos became a central consideration of this study. The data from visual observations and surveys conducted in 2005 and 2006 by AM Health & Safety consulting firm indicated presumed or assumed asbestos containing material at the majority of sites. The quantities indicated on the tables of this study were presumed to be asbestos and would have to be abated. Since no bulk sampling of material was performed at the time of the visits, samples will need to be taken to prove that this assumption is correct. Adjustments were made to the survey quantities to account for any asbestos removed from the time of the surveys to December 2008.

At Tr 2, p 154-55, the station name, number of units, size, and cost estimates were presented as:

Station	No of Units	Megawatts	Cost (millions \$)
Harbor Beach	1	103	9.3
Marysville	3	200	13.2
Greenwood	1	785	24.7
St. Clair	6	1,380	59.7
Belle River	2	1,260	40.8
Connors Creek	2	240	15.2
River Rouge	2	582	18.3
Trenton Channel	3	730	24.7
Monroe	4	3,100	100.6

In addition, Mr. Crean estimates approximate costs of \$1.6 million, \$1 million, and \$10 million to close the Range Road Ash Disposal Site, the Sibley Quarry, and the Monroe Ash Pond, respectively. Tr 2, p 155. Totaled, Edison estimates demolition costs equaling \$319.1 million.

Staff witness, James LaPan recommended a number of adjustments to the Demolition Study in the following areas: estimated volumes of asbestos containing material and the cost of its removal; the percentage of the Edison's ownership interest in the Belle River facility; estimates and assumptions related to the closure of the Monroe Ash Pond; the contingency factor; overhead and profit charges; Edison's failure to include the value of salvageable demolition material; Edison's estimated labor costs, and; tipping estimates. Tr 2, p 235.

ABATE witness, Mr. Selecky, likewise, recommends adjustments to the Study, including: that consideration be given to the value of reclaimed plant sites and demolition scrap, exclusion of the contingency factor, and lowering of the escalation rate.

Asbestos Estimates

Volumes

Staff disputes the volumes of asbestos that Edison estimates need removal during the demolition process. "Staff is recommending . . . that the estimates in [Edison's] Asbestos Survey be reduced by a total of 227,831 Square Feet (SF), 215,676 Linear Feet (LF), and by \$6,816,730. Furthermore, Staff is recommending a reduction of \$2,546,903 as a cost adjustment for the labor,

equipment, area preparation, and disposal associated with . . . removal of the asbestos.” Tr 2, p 237. At Tr 2, p 237-40, Staff explains:

Staff’s adjustments were made to the Asbestos Survey presented in [Edison’s Demolition Study] for measurements derived from unsupported and/or incomplete information which Staff can not reasonably accept. For instance, multiple sites do not have hazard ranks assigned to its assumed/presumed measurements of asbestos such as the Harbor Beach site and the Conners Creek site, the Harbor Beach survey does not contain a signature from a State of Michigan licensed Asbestos Inspector, and the St. Clair site appears to have duplicate information in the form of a second survey. In addition, the units of measurement provided in the asbestos surveys were linear feet (LF) and square feet (SF) whereas the units that Mr. Crean used in his cost of removal estimates for asbestos were in cubic yards (CY). Also adjustments were made to all estimates of assumed/presumed asbestos containing material (ACM/PACM) that were assigned a hazard rank minimum of “4”, from a scale of 1 through 7 with 7 being the most hazardous, or “Fair/4”, from a scale of good/1 through poor/7 with poor/7 being the most hazardous.

* * *

Staff Exhibit S-3, Schedule 1 contains the quantities for each site and in total of the sum of the linear feet and square feet estimates that Staff identified as either not filed with complete information or that could not be adequately justified or supported by the Company through numerous audit and discovery requests, and all quantities that have been assigned a hazard rank that specifies that the current condition of the assumed/presumed asbestos containing material (ACM/PACM) is damaged, indicating a potential fiber release, which requires immediate evaluation for isolation and removal. The summation of these identified quantities support the adjustments Staff is recommending.

* * *

Recognizing that the most recent survey was completed in 2006, Staff believes that in order to remain in compliance the Occupational Safety and Health Administration guidelines to preserve the health and safety of its employees the Company would have, by this current date, removed all quantities of assumed/presumed asbestos containing material that a licensed asbestos inspector positively identified as damage[d]. Therefore, Staff recommends that these quantities and their related costs should be excluded from the cost of removal estimates of the Company’s expert witness Mr. Crean.

* * *

In addition to the quantities Staff is recommending be excluded from the asbestos survey, Staff is also recommending a [\$2,546,903] reduction in the Company's estimated costs for removal for those same quantities as reflected in the Company's Exhibit A-13, Table 3, Demolition Cost Reserve Cost Worksheet.

In response to Mr. LaPan's claims and positions, Edison witness, Mr. Grassmyer, stated, at Tr 2, p 184:

Edison has not removed the asbestos quantities identified in the subject studies. Edison only removes asbestos in order to prevent significant exposure during building demolition or renovation activities. Further, Mr. LaPan's assumption regarding the regulatory requirement to remove the asbestos material is incorrect. The current asbestos materials are isolated and have not been removed and will only be removed in advance of retirement in the event that work being performed near the asbestos material would impose significant exposure during the work being performed.

Edison's witness, Mr. Crean, adds that, while it's true that the Harbor Beach survey is not signed, "the amount of transite panel is obtainable and verifiable from drawings and visual inspections of the site which [he] performed." Tr 2, p 169. He correctly notes that, contrary to Staff's claims, the Conners Creek survey contains hazard rankings. Tr 2, p 169. Additionally, he testifies that "Mr. LaPan states the St Clair plant information was duplicated. This is not correct. The study I relied on is included in Exhibit A-13 pages 104-110." Tr 2, p 169-70. Mr. Crean continues by stating that all asbestos removed in 2007-09 was accounted for in the demolition Study. Tr 2, p 170.

Based on the evidence presented, I find Edison's Asbestos Survey to be reasonable and the best evidence of the actual quantities of asbestos in need of removal. Staff's objections are largely based on the hypothetical removal of certain quantities and the notion that other quantities should not be counted

because of irregularities in the reporting process. However, the Asbestos Survey documented actual visual observations of the quantities of asbestos present and in need of removal. I find this evidence sufficiently reliable for the results to be accepted. While Staff's concerns may be warranted, I do not find its evidence and arguments sufficiently persuasive to warrant an adjustment to the actual observations reported in the Asbestos Survey.

Labor

Staff witness, Mr. LaPan, further contests Edison's calculation regarding the labor units required for asbestos removal. Staff states, at Tr 2, p 243-44:

Staff is recommending that the labor units (MHRS/CY) estimated by Mr. Crean for the purpose of calculating the cost of removal of the volumes of asbestos be kept uniform throughout Mr. Crean's demolition study. Staff is recommending the amount of 4 MHRS per CY rather than the 21MHRS/CY, 12MHRS/CY, and 17MHRS/CY that were used by Mr. Crean.

* * *

Staff believes the labor units for man hours required to remove asbestos containing material should be reduced to 4 man-hours per cubic yard, consistent throughout, because it found that when the total units (MHRS) calculated by the Company for the costs of asbestos removal are divided by the total cubic yards calculated by the Company for its disposal charge of Transite Panels it results in a quantity of 4 man-hours. In addition Staff feels that the Company's expert witness, Mr. Crean, escalated his labor requirements for the removal of asbestos too high in order to compensate for the "area preparation, disposal equipment, disposable tools, and disposal costs" as explained in the Company's response to Staff Audit Request LP-9⁴. Furthermore, when Staff questioned Mr. Crean about the method used for these estimates and asked him to support the estimates assumed for the purpose of these calculations with any necessary material needed, Mr. Crean's response was insufficient.

⁴ Admitted into evidence as Exh S-3, Schedule 5.

In rebuttal, Mr. Crean states, at Tr 2, p 172, that:

Mr. LaPan elected to apply the man-hours to remove transite panel to all asbestos containing material. Transite . . . panels don't contain friable asbestos and does not offer the same risk to the laborer removing these panels as the asbestos containing pipe and equipment insulation. Workers have to be in hazmat suits and respirators when removing the piping and equipment insulation. The disposal of this insulation is in bags versus wrapping the transite panels. These two operations are not equal in their removal effort and should not be priced the same.

Based on the evidence presented, I find, convincing, Staff's argument that Edison presented insufficient evidence to establish how Mr. Crean made his asbestos related labor calculations. Additionally, I agree that Edison's response to Staff's discovery request, designed to shed light on these calculations, was insufficient. Edison has the burden of establishing the estimates it uses to calculate demolition costs. Certainly, these estimates are going to be just that, estimates, and I do not expect absolute certainty in these calculations. However, when challenged, Edison must present the underlying assumptions and sources of information used to make its estimates. With regard to its asbestos removal labor estimates, I agree with Staff that Edison failed to do so. Therefore, I adopt Staff's lower projection of four man-hours per cubic foot of asbestos removal.

Scrap Value

Edison admits that its Demolition Study does not account for demolition material scrap value and does incorporate some, but not all, costs of preparing scrap for salvage. In response to Edison's exclusion of scrap value, "Staff is recommending an adjustment of \$531,316,800 be included as a salvage value

added to offset the cost of demolition of the Company's 9 steam generation power plants." Tr 2, p 250. As stated, at Tr 2, p 251, to calculate this value:

Staff obtained . . . a calculated average of scrap metal from the demolition of a nuclear power plant and used that as its reference². Staff then incorporated that average into the actual data presented in the Company's case and created Staff Exhibit S-3, Schedule 3, Salvage Values for Demolition Plant Material.

* * *

In Exhibit S-3, Schedule 3, Staff listed the Company's 9 steam generation power plants and applied the average tonnage of scrap steel from nuclear power plants to each of them. Next, the assumed volume of salvageable scrap metal was separated into four groups: Steel, Copper, Stainless Steel, and Aluminum. Staff then assigned a volumetric percentage assumed for each category of metal and then multiplied each resulting weight by the current market value of that metal Lastly, Staff applied a weighting to each facility based on the power capacities listed in the Company's Exhibit A-13 and assigned that portion of the total values accordingly.

² Technical Support Document: Potential Recycling of Scrap Metal from Nuclear Facilities: Part 1: Radiological Assessment of Exposed Individuals. S. Cohen & Associates McLean, Virginia. Under contract number 1W-2603-LTNX U.S. Environmental Protection Agency (September 2001)

In response to Staff, Edison's witness, Mr. Crean, testified that the document used by Staff is "relevant to nuclear power plants", but "not fossil power plants. A nuclear plant with its design requirements to shield the atmosphere from any radiation release and the nuclear safeguard systems has considerably larger quantities and higher grades of concrete, electrical cable and piping." Tr 2, p 160.

Mr. Crean continues, by testifying, at Tr 2, p 161-63:

Exhibit A-16 is my analysis of how I would have used the data in the EPA report. The average tonnage (Col d, line 1) for 1,165 MW nuclear less contaminated steel is 29,323 tons. When this value is scaled by the megawatt output of the Detroit Edison

plants (8,380 MW), the total quantity of all steel would be 207,557 tons. Staff's Exhibit S-3 Schedule 3, however, reflects 302,400 tons overstating [s]crap metal by 95,000 tons or 46 percent. In addition, the percent of various metals (column c of Exhibit A-16) are 97.32 % for prepared steel versus Staff's 60%, 0.36% copper versus Staff's 20%, and 2.21% stainless steel versus Staff's 10% and 0.01% aluminum versus Staff's 10%. Utilizing the value of scrap as quoted in Staff's Exhibit S-3 Schedule 3, my determination of . . . salvage value of scrap metal based on the EPA report would be \$ 91,900,000, instead of the \$531,316,600 shown on Staff's Exhibit S-3 Schedule 3. In total Mr. LaPan overstated the value of scrap by over \$400 million. In summary, a nuclear power plant should not be used as representative of a fossil plant without proper scaling of data and proper metal mix, otherwise, the results vastly overstate the level of scrap.

* * *

Exhibits A-19 and A-20 are summaries of power plant dismantlement studies supplied by, respectively, Florida Power and Light (FPL) in 2009 and Public Service of Colorado (PSC) in 2007. The dismantling studies were completed for their total fleets of 13,673 MWs (FPL) and 4,580 MWs (PSC) of fossil plants. The dismantling costs for the entire fleet for FPL were estimated to be \$441 million with scrap credit of \$93 million. The PSC study estimated dismantling costs of \$584 million and the scrap credit was estimated to be \$81 million. This calculates to an average scrap to dismantling cost of 21% for FPL and 14 % for PSC, substantially below Mr. LaPan's average of 280%.

* * *

[Additionally], the source of aluminum in a fossil power plant is the bars in the iso-phase bus duct and if specified aluminum cable tray. Iso-phase bus duct weighs approximately 125 lbs/phase foot for a 600 MW rated plant and there may be 540 phase feet in such a plant based on a review of a supplier's proposal for the LS Power Hugo 2 project. The weight of this iso-phase bus duct would be 34 tons. With 34,000 feet of tray for this size of plant and ladder tray weighing 6 lbs/foot, there would be 102 tons of aluminum. The combination of these two sources produces a potential of 136 tons of aluminum for an equivalent 600 MW plant. With the resultant percentage of aluminum developed in Exhibit A-16 of 0.01% applied against the two unit 600 MW Belle River Plant, the total aluminum tonnage is 309 tons versus 272 tons by calculating the component weights. In contrast Staff's weight of aluminum in a plant of 10% would result in over 3,000 tons, almost ten times as much.

Mr. Crean continues testifying that not all costs associated with recycling were included in the Demolition Study. Tr 2, p 163. Mr. Crean further states that his estimated demolition costs are “approximately the same as the steam production power plant demolition costs presented in the EPRI decommissioning handbook, Exhibit A-23.” Tr 2, p 164-66. Mr. Crean continues by arguing that salvage value is too unpredictable for inclusion in demolition costs. Tr 2, p 167-68. However, should salvage value be included, testimony was presented, at Tr 2, p 168-69, that:

[Mr. Crean] calculated the volume of scrap for each of Edison’s fossil fuel plants by determining which fossil fuel plant in the FPL and PSC studies most closely matched Edison’s plants in terms of both size and age, and used these plants to serve as a proxy to determine the volume of scrap metal in Edison’s plants. This is the same general method as Mr. LaPan used, however [Mr. Crean’s] method used a fossil fuel plant rather than a nuclear plant that Mr. LaPan used. These volumes are summarized on Page 1 of Exhibit A-22. [Mr. Crean] then estimated the scrap value on Page 1 by multiplying these volumes by the prices for the varying types of scrap. [He] determined the prices based upon the 2008 price from Global Scrap, which has a web site with historical data.

As a result, [Mr. Crean’s estimate for scrap value] is \$71 million, or 21% of [Edison’s] \$319 million dismantling cost.

With regard to scrap value, I agree with Staff that an estimated scrap value should be included in the Demolition Study. However, I, also, agree with Edison that it is inappropriate to estimate the scrap value of Edison’s fossil fuel plants by reference to studies for the scrap values of nuclear plants. In contrast, Mr. Crean based his estimates on studies of other fossil fuel plants of similar size and age. I find Mr. Crean’s \$71 million estimate more reasonable and accept it for inclusion in the cost of demolition.

Monroe Ash Pond

“Staff does not agree that \$10,000,000, as calculated by Mr. Crean from a 25% probability of costs associated with regulations not governing the Monroe Ash Pond, should be included in with the demolition costs of the Monroe Power Plant” because “Staff does not support a percentage of a cost that would not actually be incurred if the facilities were retired today.” Tr 2, p 245-46. In response to this position, Edison’s witness, Mr. Grassmyer, testified, at Tr 2, p 184-85, that:

Under current regulations costs would be incurred if closure occurred today. The Monroe Ash Pond is a Type III low-hazard industrial waste surface impoundment. The surface impoundment is licensed under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and is subject to the provisions of Part 115 and the administrative rules promulgated there under (Part 115 Administrative Rules). R299.4309(7)(c) of the Part 115 Administrative Rules requires the owner or operator of a surface impoundment to "cover the surface impoundment with a final cover that is in compliance with the requirements of R299.4304" at closure. R299.4304(6) of the Part 115 Administrative Rules requires final cover at Type III landfills be comprised of an erosion layer of a minimum of 6 inches of earthen material that is capable of supporting plant growth underlain by an infiltration layer, comprised of a minimum of 2 feet of compacted soil that is in compliance with R299.4913 or a flexible membrane liner that is in compliance with R299.4915 when protected by at least two feet of soil. Both R299.4913 and R299.4915 are performance-based specifications designed to limit the infiltration through the cap during the landfill post-closure period. Frankly, if the Monroe Ash Pond was closed today, under current regulations, then the cost would be 100% of the cost estimate determined by Company Witness Crean.

Based on Mr. Grassmyer’s testimony, it appears that, under the current regulatory regime, closure of the Monroe Ash Pond will require expenditures of,

at least, \$10,000,000. Therefore, the \$10,000,000 expense is properly included in the Demolition Study.

Contingency Factor

Edison's witness, Mr. Crean, testifies that the contingency "factor utilized is standard in the industry." Tr 2, p 155. "Staff recognizes that cost contingencies are a necessary part of a project estimate." Tr 2, p 246. However, "Staff believes that applying a 20% contingency factor to approximately 100% of the estimated demolition costs is inappropriate considering the level of expertise, knowledge, capabilities, professionalism, efficiencies, and vast experience of the consultants expected to be contracted to implement the demolition plans." Tr 2, p 246. Staff explains, at Tr 2, p 247:

Reductions in cost contingencies should be realized from experienced gained on similar projects. Staff believes that the expertise of the consultants should result in a reduction of the cost contingency in the amount of any premium charged for its level of experience. Mr. Crean has included in the demolition cost estimates, [in] addition to the 20% contingency, overhead and profit of 10% for the consultant and therefore Staff recommends that the cost contingency be reduced to 10% and also that the overhead and profit of 10% be contingent upon the consultants successful implementation of the demolition plan with out exceeding the estimates by more then 10%. To assure that this contingency isn't simply being used to avoid making an accurate estimate of the cost, Staff believes that any exceedance of estimated costs covered by the cost contingency past 10% but not more than 20% should be covered by the 10% budgeted for the overhead and profit.

ABATE witness, Mr. Selecky, testifies that the "contingency factor unnecessarily increases the estimated cost to decommission the [p]roduction plants." Tr 2, p 26. As Mr. Selecky sees it, "[t]he contingency factor does not reflect a real cost but provides a safeguard at the expense of current ratepayers

in the event that the cost estimates are low. However, if the estimates are accurate, the current ratepayers will be paying depreciation rates higher than they should be.” Tr 2, p 26. He continues by observing that “decommissioning cost estimates reflect current technologies and represent a best cost estimate”. Tr 2, p 26. “[I]t should be reasonable to expect that as more steam-electric units are dismantled economies of scale and increased efficiencies will be realized . . . to reduce the dismantling cost.” Tr 2, p 26. Mr. Selecky adds, “[b]y applying the contingency factor, [Edison] has increased . . . the final retirement cost by approximately \$135 million. . . . This does not represent a real cost and is based solely on a judgmental guess.” Tr 2, p 27.

In response to Staff, Mr. Crean testified that, “[t]he contingency factor is a cost allowance for field-related problems that are likely to occur. Mr. LaPan’s understanding that contingencies can be reduced by a certain level of experience and expertise is incorrect. . . . [U]se of a 20% contingency factor . . . results in a reasonable estimate of demolition costs”. Tr 2, p 177.

In response to ABATE, Mr. Crean testified that “Staff agrees that contingencies are a necessary part of a project estimates. The disagreement is with the percentage amount. Including contingency dollars in an estimate, is a universal accepted practice and these dollars should remain.” Tr 2, p 178.

At first blush, a 20% contingency factor appears excessive and unreasonable. However, based on the evidence presented, it appears that such a factor is industry standard. Therefore, this cost estimate is included.

Concrete Demolition Costs

At Tr 2, p 251-53, Staff witness Mr. LaPan testifies regarding his calculations to disallow certain expenses related to concrete demolition costs. The rationale for this adjustment is not sufficiently articulated in the evidentiary record to warrant the disallowance of these costs.⁵

Labor Costs

At Tr 2, p 253-54, Staff testifies:

Staff recommends that the “subcontract labor dollars” that Mr. Crean has associated with union represented labor be adjusted to reflect the wages that Mr. Crean supports in his Exhibit A-13, pages 60 through 66.

* * *

Mr. Crean has chosen to use the labor rates of \$56.41, \$67.29, and \$56.67 for Laborers, Operators, and Teamsters, respectively.

* * *

Staff recommends that an average rate, inclusive of fringe benefits package costs, of \$48.78 be used to calculate the “dismantling removal labor” on line item 3. This rate was calculated by averaging the hourly union rates presented in Mr. Crean’s Exhibit A-13 on page 61 and page 62.

* * *

Mr. Crean identifies General Demolition Qualifications on page 10 of Exhibit A-13 and under the heading 1.1 Pricing Basis, line item 2 he states “Estimated labor cost is based upon a demolition contractor working a straight 40 hour work week, paying union wage rates as well as per diem for contractor personnel.”

* * *

Staff has identified . . . a memo from the International Union of Operating Engineers advising that effective June 2008, their wage allocations are as listed. Staff uses that list to calculate the average wage.

⁵ Edison’s response to Staff’s evidence, on this issue, is found at Tr 2, p 174-75.

In response, Edison witness, Mr. Crean, states that “[p]ages 63 thru 66 of Exhibit A-13 are the wage data for the laborers and teamsters which Mr. LaPan ignored. By . . . ignoring these sheets he has improperly disallowed [a] \$25 million labor cost.” Tr 2, p 175.

From the record, I am unable to determine how Edison supports the “Line 3”, “Dismantling Removal Labor”, costs that are found in cost worksheets for each of the plants identified in the Study. Based on Exh A-13, p 61-62, Staff calculated an hourly rate of \$48.78, to be applied to Laborers, Operators, and Teamsters. I accept this number for Operators, only. As argued by Edison, to calculate the other rates, it is necessary to consider the figures contained in Exh A-13, p 63-66. By reference to Exh A-13, p 63-64, I calculate \$38.03⁶ to be the appropriate rate for Laborers and, by reference to Exh A-13, p 65-66, I calculate \$36.98⁷ to be the appropriate rate for Teamsters.

Residual Value of Demolition Sites

ABATE witness, James Selecky, presents evidence and opinions suggesting that a value should be assigned to the post-demolition power plant sites. See Tr 2, p 28-34. Mr. Selecky states that “development costs associated with using a new site are significant. However, if an existing site is utilized, ratepayers will see a reduction in the cost of future power plants because the appropriate zoning and land use exists as well as other reusable infrastructure.”

⁶ This rate was the result of averaging the seven general rate categories identified at Exh A-13, p 63-64. It does not include 2nd and 3rd shift premiums, foreman rates, and apprenticeship rates.

⁷ To calculate this figure, the \$40 per day charge and the \$279.25 per week charge were converted to an hourly rate; $[(\$40 \times 5) + 279.25] / 40 = \11.98 . To this, the highest base rate of \$24.44 per hour and the vacation and holiday rate of \$0.56 per hour were added.

Tr 2, p 28. To reflect the value of these reclaimed sites, Mr. Selecky recommends that the "Commission, at least, exclude the contingency factor from the dismantling cost estimates." Tr 2, p 33. He continues, "[i]f the Commission believes that just excluding the contingency factor is not sufficient, the escalation rates used to escalate the cost could be reduced and/or eliminated". Tr 2, p 33-34.

ABATE makes an alluring argument that the post-demolition value of these sites should be reflected in the Demolition Study. However, ABATE fails to present evidence from which an estimate of this value can be made. Additionally, there is no link between the post-demolition value of the sites and the contingency factor and/or escalation rates. Therefore, ABATE's recommended adjustments are not adopted.

Escalation Rate

At Tr 2, p 78-82. Edison witness, Mr. Czech, while testifying about the inflation adjusted removal cost method, states that:

Utility plant removal is labor intensive. In addition to labor, plant removal also includes the use of equipment and the disposal of property. The Consumer Price Index ("CPI") is a good indicator of labor escalations and the Producer Price Index ("PPI") is a good indicator of the equipment and disposal fee escalations. I believe a composite escalation rate consisting of 75% CPI and 25% PPI is an appropriate escalation rate for net salvage.

* * *

I believe that a 2.2% escalation rate is appropriate. This projected rate is based on the same composite CPI / PPI rate developed for the historic period. This escalation rate is shown on Exhibit A-7.

However, later in his testimony, without further explanation, Mr. Czech, testifies, that he is “supporting the calculation of the composite Employment Cost Index” (ECI) of 2.84%, as shown in Exhibit A-9 and that he “instructed Dr. White to use the composite ECI to escalate the steam production plant removal costs that were calculated by Mr. Crean.” Tr 2, p 94.

At Tr 2, p 34-35, ABATE’s witness, Mr. Selecky testifies that:

[Edison] escalated the decommissioning cost from the study date of 2008 to the future date when the dismantling is projected to occur. The costs were escalated utilizing an escalation rate of 2.84%. I recommend that this escalation rate be lowered to 2.2%.

* * *

As indicated in the direct testimony of DECo witness, Philip A. Czech, a 2.2% escalation rate is appropriate for projecting future removal cost. However, to develop the escalation rate that should be applied to dismantling studies, DECo is proposing an escalation rate of 2.84%.

* * *

The 2.2% rate is a composite of the projected Consumer Price Index (CPI) and the Producer Price Index (PPI). However, to develop the escalation rate for escalating the dismantling cost, [Edison] used the Employment Cost Index even though Mr. Czech supports an escalating rate of 2.2% for projecting future removal cost.

* * *

It appears that Edison believes that there are significant labor costs associated with dismantling a Production plant, therefore, the ECI is appropriate. However, a review of the decommissioning cost studies performed by Mr. Crean indicates this is not the case. The decommissioning cost studies include costs for top soil, imported fill material, contractor equipment rental and rubbish disposal. A review of the demolition cost worksheets seem to indicate that approximately 50% of the costs may only be labor related. Therefore, it seems appropriate that the removal cost escalation rate of 2.2% derived by DECo witness Mr. Czech should be utilized to escalate the dismantling cost to the date of final retirement.

From the record, it appears that both Edison and ABATE find the 2.2% rate reasonable. Both ABATE and Edison explain how it was calculated and support this figure in their testimony. The same can not be said for the 2.84% escalation rate used by Edison. Therefore, based on the evidence presented, it appears that the 2.2% escalation rate is more reasonable and it is adopted.

Belle River Power Plant

The parties established that Edison has an 81.39% ownership interest in the Belle River Power Plant. To reflect its ownership interest, the parties agree that Edison should be liable for only 81.39% of the demolition costs associated with this facility. This adjustment is adopted.

Fermi 2 Useful Life

With regard to the useful life of Edison's Fermi 2 plant, ABATE's witness, Mr. Selecky, recommends "that the depreciation rates be calculated assuming that Fermi 2 will receive a 20-year extension in its nuclear operating license. This will extend the retirement date to 2045." Tr 2, p 36-37. Mr. Selecky testifies, at Tr 2, p 37-39, that:

Extending nuclear licenses and life spans is common. . . . In these instances, the NRC extended the license expiration date by 20 years. As a result, total service lives for many nuclear units have been extended from 40 years to 60 years including the Palisades and Cook units in Michigan.

* * *

I cannot find a single instance of the NRC rejecting a renewal application.

* * *

According to the NRC's "Status of License Renewal Applications and Industry Activities" site, of the 35 Boiling Water

Reactors, the owners of at least 31 units have announced the decision to go through the renewal process. This represents approximately 89% of Boiling Water Reactor units.

* * *

Fermi 2 is a Boiling Water Reactor. Therefore, there is no reason to believe that DECo will not request and receive a life extension.

Mr. Selecky adds, at Tr 2, p 55:

In Michigan's 21st Century Electric Energy Plan that was submitted to Governor Jennifer Granholm by J. Peter Lark, Chairman of the Michigan Public Service Commission, the following assumption was made for nuclear plant lives:

"Nuclear units will retire after 60 years"
(Michigan's 21st Century Electric Energy Plan,
Appendix – Volume II, Workgroup Reports, page 10).

* * *

Also, in January 2006, the Staff issued the "Michigan Capacity Need Forum: Staff Report to the Michigan Public Service Commission." In that report, a 60 year life span was assumed for Michigan's nuclear units (Volume 2, Appendices C-H, page 27). Since that time, more nuclear units have obtained operating licenses for 60 year life spans. Therefore, a 60 year life span should be used to develop the Fermi 2 book depreciation rates.

Mr. Selecky continues by testifying, at Tr 2, p 56, that:

Extending the life by 20 years would reduce the annual depreciation expense for Fermi 2 from approximately \$18.0 million to \$8.2 million. This significant difference in depreciation revenue requirement presents a clear policy choice for the Commission. The Commission can either assume a 60 year useful life for Fermi 2, which would be consistent with all of the existing data regarding life extensions or accept a 40 year life which will cost present ratepayers an additional \$9.8 million per year.

In response, Edison's witness, Mr. Czech, indicates that he "agree[s] with and support[s] [a] policy that only considers the Company's current situation and does not include speculative issues" and recommends not extending the Fermi 2

depreciable life until after the NRC approves any license extension
Tr 2, p 105-06.

In its testimony, Staff recommended 40 years for the estimated life of Fermi 2. Tr 2, p 199. However, in its Reply Brief, Staff abandoned its position and adopted ABATE's 60-year projection.

While not introduced as part of this evidentiary record, ABATE has indicated, and I take notice, that on October 29, 2010, in Case No. U-16472, Edison filed the testimony of its witness, Don M. Stanczak. Mr. Stanczak testified that "Edison has intentions to pursue an operating license extension for the Fermi 2 nuclear asset. The license extension would allow Fermi 2 to operate an additional 20 years beyond its current operating license which expires in 2025".

I find the evidence and arguments put forward by ABATE, and supported by Staff, convincing. It should be a goal to determine, as best as possible, the useful life of Edison's assets. In this case, the evidence supports the conclusion that 60-years is the best and most reasonable estimate of Fermi 2's life.

"Traditional" Straight-Line Depreciation Method

At Tr 2, p 90-91, Edison's witness, Mr. Czech, testified that the:

Traditional recovery of removal costs through depreciation rates is based on a straight-line method with ratable recovery over the assets' lives. This method provides intergenerational equity, which is accomplished by matching the benefits derived from the use of the asset with the full cost recovery, including removal costs, over the assets' lives. It has been traditional ratemaking policy in Michigan for customers receiving the benefits from the use of the underlying assets to pay for the full cost of the asset, including removal costs.

Addressing alternative methods, Edison witness, Dr. White, states, at Tr 2, p 122:

While recognition of time value of money in accruing for net salvage is not a flawed concept, it is my opinion that depreciation rates derived from a traditional formulation of accruals for net salvage is appropriate and fair to present and future customers.

Who should pay for future cost of removal (and when) is a policy decision regulators must decide. A decision to postpone capital recovery and accruals for net salvage, however, is not without costs. A reduction in depreciation accruals achieved by deliberately shifting the timing of capital recovery will reduce internal cash generation and expose current customers to potentially higher marginal costs of additional external financing. This is not to suggest that internal cash generation (or reducing revenue requirements) should be substituted for the goals of depreciation accounting. However, the potential for increasing (or reducing) the marginal cost of external financing by shifting the timing of depreciation expense is a consequence that should not be ignored. In my view, the simplicity and broad acceptance of the traditional method far out weigh the complexity and likely adverse consequences of attempting to shift the timing of net salvage accruals using a time-value of money or an inflations adjusted method.

ABATE, however, disputes Edison's endorsement of the traditional method. At Tr 2, p 42, ABATES witness, Mr. Selecky testifies that:

DECo's proposed rates require ratepayers to pay net salvage costs that include inflation. Under the Traditional method, customers in 2011 and 2030 will pay the same amount. That is, no adjustment is made for the purchasing power of the dollar or the time value of money. This treatment of net salvage places an unreasonable burden on today's ratepayers and provides a substantial benefit to future ratepayers.

Mr. Selecky continues by recommending "that the Commission not use the Traditional Method for [transmission and distribution] and, instead, adopt a SFAS 143 approach." Tr 2, p 44. Mr. Selecky testifies that this "could be considered a 'pilot' program where the change in depreciation rates and impact on cash flow is more limited than applying this method to a broader category of assets." Tr 2, p 44.

Staff witness, Mr. Birkam, supports use of the traditional method and testifies that “the traditional method produces a reasonable present value of the net salvage expense to be recovered without the need for a present valuation discount using an estimated discount rate of a future value reached with an estimated inflation rate.” Tr 2, p 215.

From an evidentiary standpoint, there appears to be no correct choice between the positions the parties have taken on this issue. Rather, the decision of whether to continue use of the traditional method appears to be more appropriately viewed as a policy decision; one that the Commission has already spoken upon via previous orders. Therefore, based on the Commission’s orders in Case No. U-15699 and Case No. 15629, Edison’s use of the “traditional” straight-line depreciation method is adopted.

Broad Group Procedure v Vintage Group Procedure

Edison is proposing to change from the broad group procedure to the vintage group procedure, as “recommended by Foster Associates to more nearly achieve the goals and objectives of depreciation accounting.” Tr 2. p 125.

As explained by Edison’s witness, Dr. White, at Tr 2, p 125:

Unlike the broad group procedure in which each vintage is estimated to have the same average service life, consideration is given to the realized life of each vintage when average lives and remaining lives are derived using the vintage group procedure. The vintage group procedure distinguishes average service lives among vintages and composite life statistics are computed for each plant account. The formulation of an account accrual rate using the straight-line method, vintage group procedure, remaining-life technique is identical to the broad group procedure.

ABATE's witness, Mr. Selecky, expressing his concerns with the vintage group procedure, testifies, at Tr 2, p 21, that:

As indicated in Dr. White's testimony, the vintage average service life . . . must be estimated initially and periodically revised as indications of the eventual average service life becomes more certain. It should be noted that [Edison] has not filed for a change in its depreciation rates since 1993. Therefore, I have concerns regarding the frequency of depreciation cases and the consequences of not having updates.⁸

Staff supports Edison's proposed change to the vintage group procedure on condition that, in the next depreciation case, Edison "provide at least 40 activity years of data . . . for all non Steam and Nuclear production plant" or "revert to the Broad Group method". Tr 2, p 225-26.

In response, Edison provides testimony indicating that such information is not contained in the data base used in this case and that, regardless, it is unnecessary. Tr 2, p 132-33.

Because, no party directly challenges Edison's decision to switch to a vintage year procedure, the change is adopted. However, in its next depreciation case, Edison should provide the additional activity years' data, as requested by Staff.

⁸ Based on its briefs, it appears that ABATE has abandoned any challenge to the vintage group procedure and has stated no request for relief with regard to it. Instead, ABATE simply states, at ABATE Init Br, p 1, that:

In the past, Edison, with the approval of the Commission, has utilized the Average Life Group ("ALG") procedure to develop Edison's depreciation rates, but in this proceeding, Edison has switched to the Vintage Group ("VG") procedure without adequate explanation and has refused to provide any data relating to the ALG procedure.

Amortization

At Tr 2, p 95, Edison's witness, Mr. Czech recommends "amortization accounting for certain General Plant accounts and for the current, conventional meters account. He, further, testifies that "this change will simplify the accounting and record keeping and will actually result in greater accuracy of plant reports. Under amortization accounting property is automatically 'written-off' at the end of the amortization period. This process insures that property that is old and no longer serving customers is removed from ratebase." Tr 2, p 95-96.

In response, Staff witness, Mr. Birkam, testifies, at Tr 2, p 212-13, that:

Staff's opinion is that there is often uncertainty with the actuarial data in General Plant accounts, so amortization makes more sense. Amortization, set over an appropriate period, can insure that most general plant will not be recovered in rates after it is no longer in service. This is different from depreciation rates, which include net salvage, and continue on as long as the account is active to handle mass plant considerations. Therefore, Staff agrees with the amortization of certain general plant.

However, as to Account 370.01 (Meters-Conventional), Mr. Birkam testifies, at Tr 2, p 213, that:

Staff recommends that this Account not be amortized until the Commission decides that Detroit Edison's AMI program is no longer a pilot and has decided to allow recovery of its full implementation. Until then, Staff recommends that this account be depreciated at its historic rate However, because of the redistribution of the depreciation reserve, the rate is adjusted to 3.37%.

As amended by Staff's recommendation regarding Account 370.07, Edison's proposed amortization is adopted.

CONCLUSION

As explained above, the following adjustments are made to Edison's proposal:

1. With regard to its Demolition Study:

- man-hours associated with asbestos removal is lowered to 4 hours per cubic yard;
- \$71 million is subtracted from the cost of demolition to reflect the scrap value of demolition material;
- Dismantling Removal Costs included on Line 3 of the Cost Worksheets is lowered to \$38.03 for Laborers, \$48.78 for Operators, and \$36.98 for teamsters;
- the escalation rate is lowered to 2.2%, and;
- Edison's liability for the demolition costs of the Belle River Power Plant is lowered to 81.39% of the total for that facility;

2. The useful life of the Fermi 2 plant is increased to 60 years.

3. Edison's request for amortization of Account 370.01 (Meters-Conventional) is denied until such time as the Commission determines that the AMI program is no longer a pilot program.

Based on the above modifications, the parties should recalculate Edison's proposed composite annualized depreciation rate of 3.33% and its proposed annualized depreciation accruals of \$406,390,877.

Any arguments not specifically addressed in this Proposal for Decision were deemed irrelevant to the findings and conclusions of this matter.

STATE OFFICE OF ADMINISTRATIVE
HEARINGS AND RULES
For the Michigan Public Service Commission

Mark D. Eyster
Administrative Law Judge

ISSUED AND SERVED: March 24, 2011